

I Claim:

1. An addressable lighting device and control system comprising: at least one lighting device with an electronic address and having a detecting means, a means for switching said addressable lighting device into a programming mode, a microcontroller, and a controllable lighting means; and a remote control means to transmit a single channel signal to selectively or collectively set said electronic address for the addressable lighting device on which the device will respond to all future signals from the remote control corresponding to that electronic address, wherein said microcontroller processes each incoming signal to determine if it pertains to said electronic address of said addressable device and if the electronic address corresponds then said controllable lighting means is activated in accordance with instructions in said incoming signal.
2. An addressable lighting device and control system according to Claim 1, wherein said remote control means transmits a single channel signal to switch said addressable lighting device into programming mode.
3. An addressable lighting device and control system according to Claim 1, further comprising means to activate said means for switching said addressable lighting device into said programming mode.
4. An addressable lighting device and control system according to Claim 3, wherein said means to activate said means for switching said addressable lighting device into said programming mode is a laser pointer or a permanent magnet.
5. An addressable lighting device and control system according to Claim 1, wherein said detecting means is an infrared sensor or a radio frequency antenna.
6. An addressable lighting device and control system according to Claim 1, wherein said means for switching is selected from the group comprising a mechanical switch, a pushbutton, a light detecting switch, a hall effect switch, and a reed switch.

7. An addressable lighting device and control system according to Claim 2, wherein said means for switching is a light detecting switch.
8. An addressable lighting device and control system according to Claim 3, wherein said means for switching is selected from the group comprising a mechanical switch, a pushbutton, a light detecting switch, a hall effect switch, and a reed switch.
9. An addressable lighting device and control system according to Claim 1, wherein said addressable lighting device further includes a visual display means to indicate status.
10. An addressable lighting device and control system according to Claim 9, wherein said visual display means is a light emitting diode display
11. An addressable lighting device and control system according to Claim 1, wherein said remote control means transmits an infrared or radio frequency signal.
12. An addressable lighting device according to Claim 1, wherein said remote control means includes a microprocessor to generate signals.
13. An addressable lighting device and control system according to Claim 1, wherein said remote control means includes a plurality of switches to set parameters of a signal transmitted to said addressable lighting device.
14. An addressable lighting device and control system according to Claim 13 wherein said remote control means includes a plurality of switches to set parameters of a signal transmitted to said addressable lighting device.
15. An addressable lighting device and control system according to Claim 1, wherein said remote control means includes a keypad to set parameters of a signal transmitted to said addressable lighting device.
16. An addressable lighting device and control system according to Claim 13, wherein said remote control means includes a keypad to set parameters of a signal transmitted to said addressable lighting device.

17. An addressable lighting device and control system according to Claim 1, wherein said addressable lighting device further includes a decoder to transform an incoming signal into a digital signal.
18. An addressable lighting device and control system according to Claim 1, wherein said remote control means includes means to globally access a plurality of address lighting devices to set a desired power intensity level.

19. A control system for an addressable lighting device, comprising:  
remote control means generating a single channel output signal; and  
at least one addressable lighting device, said at least one addressable lighting device having a changeable electronic address, switch means for switching between a program mode and an operation mode, receiving means for receiving said output signal from said remote control means, and a microcontroller, wherein said at least one addressable lighting device is in said program mode when said electronic address is set or changed and said at least one addressable lighting device being in said operation mode when operating, and wherein said output signal of said remote control means sets said electronic address and said power intensity value.
20. A control system for an addressable lighting device according to Claim 19, further comprising means to activate said switch means for switching between said programming mode and said operation mode.
21. A control system for an addressable lighting device according to Claim 20, wherein said means to activate is a laser pointer or a permanent magnet.
22. A control system for an addressable lighting device according to Claim 19, wherein said receiving means is an infrared sensor or a radio frequency antenna.
23. A control system for an addressable lighting device according to Claim 19, wherein said switch means for switching between said programming mode and said operation mode is selected from the group comprising a mechanical switch, a pushbutton, a light detecting switch, a hall effect switch, and a reed switch.
24. A control system for an addressable lighting device according to Claim 1, wherein said addressable lighting device further includes a visual display means to indicate status.
25. A control system for an addressable lighting device according to Claim 24, wherein said visual display means is a light emitting diode display

26. A control system for an addressable lighting device according to Claim 19, wherein said remote control means transmits an infrared or radio frequency signal.
27. A control system for an addressable lighting device according to Claim 19, wherein said remote control means includes a microprocessor to generate signals.
28. A control system for an addressable lighting device according to Claim 19, wherein said remote control means includes a plurality of switches to set parameters of a signal transmitted to said addressable lighting device.
29. A control system for an addressable lighting device according to Claim 27 wherein said remote control means includes a plurality of switches to set parameters of a signal transmitted to said addressable lighting device.
30. A control system for an addressable lighting device according to Claim 19, wherein said remote control means includes a keypad to set parameters of a signal transmitted to said addressable lighting device.
31. A control system for an addressable lighting device according to Claim 27, wherein said remote control means includes a keypad to set parameters of a signal transmitted to said addressable lighting device.
32. A control system for an addressable lighting device according to Claim 19, wherein said addressable lighting device further includes a decoder to transform an incoming signal into a digital signal.
33. A control system for an addressable lighting device according to Claim 19, wherein said remote control means includes means to globally access a plurality of address lighting devices to set a desired power intensity level.

34. A method of programming addressable lighting devices in a lighting control system having a remote control means to transmit signals to said addressable lighting device, comprising the steps of:
- a. providing at least one addressable lighting device, said at least one addressable lighting device having a changeable electronic address, switch means for switching between a program mode and an operation mode, and receiving means for receiving an output signal from said remote control means, wherein said at least one addressable lighting device is in said program mode when said electronic address is set or changed or when a power intensity value is changed and said at least one addressable lighting device being in said operation mode when operating, and wherein said output signal of said remote control means sets said electronic address and said power intensity value;
  - b. changing said addressable lighting device to said program mode;
  - c. transmitting a single channel signal to said addressable lighting device to set an electronic address and/or a power intensity value of said addressable lighting device; and
  - d. changing said addressable lighting device to said operation mode.
35. A method of programming addressable lighting devices in a lighting control system according to Claim 34, further comprising the step of sending a signal when said addressable lighting device is in said operation mode to activate said addressable lighting device.

36. A method of programming addressable lighting devices in a lighting control system according to Claim 34, wherein said single channel signal is a serially transmitted data protocol, and further comprising the steps of:
- a. synchronizing said lighting devices to signal a beginning of transmission of said serially transmitted data protocol; and
  - b. generating said serially transmitted data protocol with an address field wherein a first byte of the address field being different than zero, and with an intensity level field corresponding to an intensity of a specific address defined by said address field.

37. A method of programming lighting devices with electronic addresses in a lighting control system having a remote control means to transmit signals to said lighting devices using a serially transmitted data protocol, comprising the steps of:

- a. internally saving a local look up table of values (LUT) on each one of the lighting devices;
- b. generating said serially transmitted data protocol;
- c. simultaneously decoding and saving a SCENE portion of said serially transmitted data protocol in each one of the lighting devices; and
- d. examining a COMMAND portion of said serially transmitted data protocol to determine if a SCENE needs to be saved or recalled, and
  1. if the COMMAND portion indicates that said SCENE needs to be saved, saving a corresponding entry in the LUT of the lighting devices; or
  2. if the COMMAND portion indicates that said SCENE needs to be recalled, setting intensity values of each of said lighting devices according to the value retrieved from a LUT for a corresponding entry previously assigned to said SCENE.